# Bid Specifications for Solar Home Lighting System

(Model-II)

(CFL Based)

Under

# **Solar Photovoltaic Programme**

For Financial Year 2012-13

Sponsored by
(JREDA)
Government of Jharkhand



Jharkhand Renewable Energy Development Agency (JREDA)

328/B, Road No. 4, Ashok Nagar, Ranchi. Ph.: 0651-2246970, 2247049, 2240692; Fax: 0651-2240665, e-mail: info@jreda.com;

Website: www.jreda.com

# **CONTENTS**

Sl. No.	Description	Page No.
1	Notice Inviting Bid	03
2	Particulars of Bid	06
3	Instruction to Bidder	07
4	General Terms and Conditions	11
5	Technical Specifications	15
6	Format for Covering Letter	19
7	Check List of Technical Bid	20
8	Format for Technical Details	21
9	Details of Orders Received and Executed in Last 7 Years	22
10	Price Bid	23
11	Information about the Bidding Firm	24
12	Declaration by the Bidder	26
13	Technical Detail Form for Warrantee Card	27
14	Format for submitting Bank Guarantee to Earnest Money	28
15	Format for Certificate of Delivery of all the Equipments of Solar Power Plant received by the Consignee as Proof of Compliance by the Supplier	30
16	Format of Power of Attorney for Signing Bid	31
17	Format For Financial Requirement – Annual Turnover	32
18	Format For Financial Requirement -Net Worth Certificate	33
19	Format For O&M and CMC Report Certificate	34

# NIB No: 04/JREDA/SPV/SHLS (CFL) / 2013-14

Sub: Manufacturing, Supply, Installation and Testing & Commissioning including 5 years Comprehensive Maintenance Contract (CMC) of Indigenous CFL Based Solar Home Lighting Systems (SHLSs- Model-II) under Solar Photovoltaic Programme 2012-13 for Jharkhand Renewable Energy Development Agency (JREDA) on Turnkey basis.

#### **Preamble**

As part of Solar Photovoltaic Programme, JREDA invites bid for "Manufacturing, Supply, Installation and Testing & Commissioning including 5 years Comprehensive Maintenance Contract (CMC) of Indigenous CFL Based Solar Home Lighting Systems (SHLSs- Model-II) under Solar Photovoltaic Programme 2012-13 for Jharkhand Renewable Energy Development Agency (JREDA) on Turnkey basis" for short listing of experienced & eligible bidders to whom work shall be allocated for successful execution of the project in a defined time frame. No bidders shall submit bid for quantity less than minimum lot size.

#### Part -I The Technical Conditions:

The bidder should fulfill the following Technical & eligibility conditions. The bidder should submit the check list for Technical bid for this purpose as per the Performa given at **Annexure-2**.

- 1. The bidder should be MNRE approved Channel Partner/ MNRE approved manufacturer/ MNRE approved PV System integrator/A registered manufacturing company/Firm/Corporation in India (Including MSME of Jharkhand) of at least one of the major sub systems namely SPV Cells/ Modules or Battery or PV System Electronics (Confirming to relevant National/ International Standards). The bidder shall furnish either relevant MNRE certificate or concerned Industry Department certificate clearly indicating that they are manufacturers of SPV Power Plant including SPV Cells/ Modules or Battery or PV System Electronics as applicable. Authorized dealers and subcontractors are not eligible to participate.
- 2. The bidder should be a functional organization. To substantiate this claim, the bidder should submit the copy of balance sheet for last 3 years or from the date of establishment to 31.03.2012, whichever is applicable indicating clearly the sale and turnover of SPV systems. These balance sheets should be duly certified by the Statutory Auditor with his stamp.
- 3. Registered Micro, Small & Medium Enterprise (MSME) of Jharkhand should submit the attested copy of Registration given by Industry Department.

#### 4. Experience Requirement:

For General Bidder: Bidder should have cumulative experience of executing contracts of supply of at least 0.925 kWp of SPV System to any SNA / Govt. Organization / PSU in the last seven years ending up to date of advertisement of this tender for minimum lot size of 100 Nos. of CFL based SHLS. The bidder submitting the bid for higher nos. of SHLSs will require to have cumulative work experience equal to 25% of the bid capacity.

For MSME of Jharkhand: Bidder should have cumulative experience of executing contracts of supply of at least 0.37 kWp of SPV System to any SNA / Govt. Organization / PSU in the last seven years ending up to date of advertisement of this tender for minimum lot size of 100 Nos. of CFL based SHLS. The bidder submitting the bid for higher nos. of SHLS will require to have cumulative work experience equal to 10% of the bid capacity.

The copy of order and certificate indicating its successful execution should be enclosed with the check list as at **Annexure-2**.

- The offered PV Modules should be as per IEC61215 edition II / BIS 14286 from an NABL or IECQ
  accredited laboratory standards having test certificates prescribed by MNRE. The valid test certificate
  should be enclosed along with the check list as at Annexure-2.
- 6. Electronics should conform to relevant Standard for efficiency measurement and should also conform to system as given in technical specification. The inverter should be from Indian Manufacturer. The valid test certificate should be enclosed along with the check list as at Annexure-2.
- 7. Batteries should fulfil the requirement as per specification given at Technical Specification for Capacity Test Charge/Discharge efficiency Self-Discharge as per MNRE requirements and valid test reports to be submitted along with the check list as at Annexure-2. The certificate should be in a form of an undertaking letter from the manufacturer complying all the technical specifications of battery.
- The Bidder should have valid CST/State VAT/ TIN registration certificate. A copy of which should be enclosed in the check list as at Annexure-2.

#### 9. Turnover Requirement:

**For General Bidder:** Bidder should have the minimum average Annual Turnover of **Rs. 2.25 Lakhs** derived from the last three financial years ending on 31.03.2012 / 2013 on the basis of audited annual accounts for SPV Systems for minimum lot size. The bidder submitting the bid for higher nos. of SHLS will require to have average Annual Turnover in same higher proportion (25%).

**For MSME of Jharkhand:** Bidder should have the average Annual Turnover of **Rs. 1.00 Lakhs** derived from the last three financial years ending on 31.03.2012 / 2013 on the basis of audited annual accounts for SPV Systems for minimum lot size. The bidder submitting the bid for higher nos. of SHLS will require to have average Annual Turnover in same higher proportion (10%).

The certificate should be as per the Performa given at Annexure-12.

#### 10. Net worth Requirement:

**For General Bidder:** Bidder should have the minimum Net Worth of **Rs.1.00Lakhs** as on 31.03.2012 / 2013 on the basis of audited annual accounts for SPV Systems for minimum lot size. The bidder submitting the bid for higher nos. of SHLS will require to have Net Worth in same higher proportion (10%).

**For MSME of Jharkhand:** Bidder should have the minimum Net Worth of **Rs. 0.50 Lakhs** for as on 31.03.2012 / 2013 on the basis of audited annual accounts for SPV Systems for minimum lot size. The bidder submitting the bid for higher nos. of SHLS will require to have Net Worth in same higher proportion (5%).

Net worth certificate should be as per the Performa given at Annexure-13.

- 11. The bidder should either purchase the bid document from JREDA office by submitting a demand draft of Rs. 10,000/- (Rupees Ten thousand only) in favour of "Director, JREDA" on any Indian Nationalized Bank/Scheduled Bank, payable at "Ranchi". Bidders may also download the bid document from JREDA website (www.jreda.com) and submit the cost of the bid document of requisite value in the form of Demand Draft, as applicable along with Part I (Technical Bid).
- 12. Bidders should submit in Part I (Technical Bid) the earnest money in the form of Bank Guarantee of requisite value as mentioned in "Particulars of Tender". The Bank Guarantee shall be made in favour of "Director, JREDA" payable at Ranchi from any Indian Nationalized bank/Scheduled bank. The bank guarantee shall remain valid for 12 months.

- 13. Empanelment Procedure after opening of Financial Bid: The Financial bid should be submitted in a separate envelope as per the Performa given at Annexure-5. The lowest rate i.e. L1 received would be the appropriate rate. The bidders shall be ranked as L1, L2, L3 and so on based on financial bids.
  - JREDA will allot the quantum of work to L1 bidder on the basis of his financial competence. The financial competence of the bidder will be evaluated on the basis the average annual turnover of last three years and the Net Worth as on 31.03.2012 / 2013 whichever is minimum. If required, the remaining work will be then offered to L2 bidder at L1 rate, and so on.

For MSME registered in Jharkhand to extend the provisions of section 18.1 (ii) (d) of Jharkhand Industrial Policy 2012 for work allocation under the tender. For this purpose a separate empanelment of MSME registered in Jharkhand will be prepared provided the condition of section 18.1 (ii) (d) are fulfilled and same procedure will be followed in the allocation of work in the preceding paragraph.

14. For any clarification with respect to the specification and other allied technical details of the article included in the tender enquiry document SH. Sudhakar Panday, Project Director JREDA may be contacted during office hour through written request latest by 8<sup>th</sup> May 2013. Request made after 8<sup>th</sup> May 2013 will not be considered.

# Particulars of Bid

# NIB No: 04/JREDA/SPV/SHLS (CFL) / 2013-14

Eligible and prospective Bidders may quote their offers as per details mentioned below:

1.	Name of work	Manufacturing, Supply, Installation and Testing & Commissioning including 5 years Comprehensive Maintenance Contract (CMC) of Indigenous CFL Based Solar Home Lighting Systems (SHLSs- Model-II) under Solar Photovoltaic Programme 2012-13 for Jharkhand Renewable Energy Development Agency (JREDA) on Turnkey basis.
2	Tentative Quantity	CFL based Solar Home Lighting System: <b>1000 Nos.</b> The quantity mentioned above is tentative and subject to increase or decrease depending on the actual requirement at the time of placing order and ressources available. The estimated cost is about <b>Rs.90.0 Lakh</b> as per the previous order rate of JREDA.
3	Minimum lot size	CFL based Solar Home Lighting System: 100 Nos.  No bidder shall submit bid for quantity less than minimum lot size.
4	Cost of Bid document (Non-refundable)	<ul> <li>Rs.10, 000/- (Rupees Ten Thousands only) for General Bidder.</li> <li>Rs. Nil for MSME of Jharkhand.</li> </ul>
5	Earnest Money Deposit	For General Bidder: <b>Rs. 0.18 lakh</b> for the lot size of 100 Nos. CFL based SHLS  The bidders for higher capacities are required to submit EMD in the same proportion.  For MSME of Jharkhand: <b>Nil.</b>
6	Time of completion	Six months from the date of issue of purchase order/intimation.
7	Validity of offer for acceptance	Six months from the last date of submission of Bid.
8	Date of commencement and time of Issue of bid documents	From <b>29.04.2013</b>
9	Last date & time of submission of bids document	<b>21.05.2013</b> up to 2.00 PM.
10	Date & time of opening Technical bid Part-I	<b>21.05.2013</b> at 2.30 PM.
11	Date & time of opening Financial bid Part-II	Shall be intimated in due course on website & letter.
12	Place of issue and submission of bid documents and address for communication	Jharkhand Renewable Energy Development Agency(JREDA) Plot No. 328/B, Road No.4,Ashok Nagar Ranchi- 834002. Ph.No: 2246970,Fax No: 0651-2240665 Web site: www.jreda.com E-mail: info@jreda.com

#### Instruction to Bidder

Jharkhand Renewable Energy Development Agency (JREDA), Ranchi invites offers from eligible Indian bidders for the tender for the mentioned work with your best bidding price offer as per our specifications and terms & conditions mentioned in the bid document. Salient features of the bid document are given below:

#### 1. Bid Document

1.1 This bid document comprises of total **34 Pages**. In addition, any other documents/instructions/amendments/revisions issued by JREDA to the bidder till the due date of opening of the bids shall also be deemed to be integral part of the bid document. Failure to furnish all the information as per the bid document in every respect will be at the bidder's risk.

#### 2. Cost of Bid Document

- 2.1 Bid document can be purchased from JREDA office by submitting a Demand Draft of Rs. 10,000/-only drawn in favor of "Director, JREDA" on any Indian Nationalized Bank/Scheduled Bank, payable at "Ranchi" of requisite value, as applicable, during the time and period mentioned in "Particulars of Tender".
- 2.2 Bidders may also download the bid document from JREDA website (www.jreda.com) and submit the cost of the bid document of requisite value in the form of Demand Draft, as applicable along with Part I (Technical Bid).
- **2.3** Bid applications without the cost of bid document will be rejected.

#### 3. Earnest Money

- **3.1** Bidders shall submit in **Part I (Technical Bid)** the earnest money in the form of Bank Guarantee of requisite value as mentioned in "Particulars of Tender". The Bank Guarantee shall be made in favor of "Director, JREDA" payable at Ranchi from any Indian Nationalized bank/Scheduled bank.
- 3.2 The bank guarantee shall remain valid for 12 months.
- 3.3 Bidders seeking concession/exemption from submission of cost of bid document and/or earnest money, shall have to submit an attested photocopy of relevant MSME of Jharkhand certificate as applicable, in Part I of the bid application. Non submission of relevant certificate will lead to rejection of bid.
- **3.4** The earnest money shall be returned to all unsuccessful bidders, within thirty days from the date of placement of LOI/LOA to the successful bidder(s).
- **3.5** The earnest money shall be forfeited if
  - a. Any bidder withdraws his bid or resiles from his offer during the validity period.
  - The successful bidder fails to furnish his Acceptance of the order within fifteen days of placement of LOI/LOA by JREDA.
  - c. The bidder fails to successfully complete the work within the stipulated time frame. Delay in completion due to extreme and unavoidable situations shall have to get approved by Director, JREDA. This approval shall also have a cut-off date by which the entire work shall have to be completed.

#### 4. Security Deposit:

- **4.1** Successful General bidders shall submit a security deposit @10% of the allotted work order value in the form of Bank Guarantee on or before 20 days from issuing work order.
- 4.2 Successful MSME bidders are exempted from submission of security deposit.

4.3 The 50% Security Deposit shall be refunded / released to the bidder after expiry of 60 days from the actual date of successful supply, installation & commissioning. The balance 50% Security Deposit will have to be maintained by the bidder with JREDA as Performance Guarantee till the completion of warrantee period of complete system.

#### 5. Performance Guarantee:

- **5.1** 50% Security deposit of successful General bidders shall be treated as performance guarantee after supply, installation & commissioning of material.
- **5.2** Successful MSME bidders shall submit a Performance Guarantee @2.5% of the allotted work order value in the form of bank guarantee before release of payment.
- **5.3** The Performance Guarantee will have to be maintained by the bidder with JREDA till the completion of warrantee period.
- **5.4** The Security Deposit/Performance Guarantee shall be submitted in the form of bank guarantee in favour of "Director, JREDA" payable at Ranchi from any Indian Nationalized bank/Scheduled bank.
- **5.5** Non submission of Security Deposit/Performance Guarantee within the time frame, shall lead to forfeiture of EMD and cancellation of LOI/LOA.
- **5.6** If Bidder/MSME unit fails to carry out the work allotted to him as per the provisions of the tender documents then such Bidder/MSME unit may be black listed for future awards of work.

#### 6. Submission of Bids:

- **6.1** Bidders are advised to submit their bids strictly based on the specifications, terms and conditions contained in the bid document and subsequent revisions/amendments, if any. The bid should be submitted along with covering letter as given at **Annexure-1**.
- **6.2** The bid shall be prepared and submitted by typing or printing in English on white paper in consecutively numbered pages duly signed by the authorized signatory with company seal affixed on each page. Any part of the bid, which is not specifically signed by the authorized signatory and not affixed with company seal, shall not be considered for the purpose of evaluation. The bidder shall also enclose the information about bidding firm as per **Annexure-6**.
- **6.3** Original copy of bid document, amendments/revisions to bid document and one soft copy, including minutes of meeting(s), issued by JREDA, if any, shall be signed and submitted along with the bid.
- **6.4** All the Proforma must be on the bidder's official letterhead (if specified). Any change in wording of the Performa will not be allowed. The bidder shall submit a declaration as given at **Annexure-7**.
- **6.5** The offer shall contain no erasures or overwriting except as necessary to correct errors made by bidder. The person signing the offer shall initial such corrections.
- **6.6** Complete bid document including all enclosures should be submitted in hard bond or spiral binding and all pages should be numbered (except leaflet/catalogue) and must be signed by the company's authorized signatory with seal of the company.
- 6.7 The bidders should submit the bid in two envelopes, The Part-I (Technical bid) and the Part II (Price Bid) should be sealed in separate envelopes and both envelopes should be sealed in a third envelope. The Part II (Price Bid) of only such bidders would be opened who qualify in the Part I (Technical Bid). The Part-I (Technical Bid) should be sealed in an envelope super scribed with (i) NIT NO.(ii) "Part-I Technical Bid", (iii) Name and address of the contact person of the bidding firm, and (iv) should be addressed to Director, JREDA.

- **6.8 Part –I (Technical Bid)** should not contain price of any item. Such cases, even if found anywhere, shall not be given any cognizance.
- 6.9 The Part-II (Price Bid) should be sealed in an envelope super scribed with NIT No., "Part II Price Bid", Name and address of the contact person of the bidding firm, and should be addressed to Director, JREDA. This envelope should contain the following:
  - It should contain only Performa as prescribed at Annexure-5 duly filled, signed and stamped by authorized signatory of the bidder.
- 6.10 In case of any contradictions between the prices mentioned in figures and words, the prices mentioned in words shall be considered final. Also, in case of any arithmetical error in regard to the total amount and individual rates, the individual rates shall be taken as final and the total amount shall be adjusted accordingly.
- **6.11** The price bid should not contain any technical matter or other matter except price. The date of opening of the price bid will be notified after opening of Technical bid.
- 6.12 Part-I and Part –II of the bid document should be sealed in a third envelope. The third envelope should be sealed and super scribed (i) NIT No., (ii) "Offer for Supply of SHLS (CFL based)" (iii) Name and address of the contact person of the bidding firm, and (iv) Should be addressed to Director, JREDA, Plot No. 328 B, Road No. -4, Ashok Nagar, Ranchi-834002.

#### 7.0 Authority of Person Signing the Documents

A person signing the bid document or any document forming part of the bid document shall be deemed to warrant that he has authority to bind such offer/ document and if on enquiry it appears that the person signing the document had no authority to do so, JREDA may, without prejudice to other civil and criminal remedies, cancel the bid/contract and hold the signatory liable for all costs and damages. For this purpose Power of Attorney in the Performa as prescribed at **Annexure-11**shall be submitted.

#### 8.0 No Claim or Compensation for Submission of Tender

The bidder whose bid is not accepted shall not be entitled to claim any costs, charges or expenses in connection with his submission of bid, even though JREDA may decide to withdraw the Notice Inviting Tender.

#### 9.0 Validity of Offer

Unless otherwise specified, the bidder shall keep his offer valid initially for a period of Six months from the last date of submission of the bid.

#### 10.0 Five Years Comprehensive Maintenance Contract (CMC)

The SHLS system contract price includes the provision of 5 years mandatory Comprehensive Maintenance Contract (CMC). To ensure long term sustainability of the system, the bidder should provide his representatives name, full address, mobile number and photographs to JREDA with one hard copy as well as the names and contact details of all technicians should also be provided.

The Comprehensive Maintenance Contract shall include servicing & replacement guarantee for parts and components (such as battery, electronics, inverters, PV modules and other hardware) of SHLS for five years from the date of installation. For PV modules, the replacement guarantee is for Twenty five (25) years. Battery should be warranted for a minimum life of 5 years. The date of CMC maintenance period shall begin on the date of actual commissioning of SHLS. It is mandatory for the contractor to carry out CMC regularly and submit report to JREDA quarterly.

#### 11.0 Preventive/Routine Maintenance

This shall be done by the supplier/contractor at least once in every three months and shall include activities such as, cleaning and checking the health of the SPV system, cleaning of module surface, topping up of batteries, tightening of all electrical connections, regular checks to identify any leakage of electricity, changing of tilt angle of module mounting structure, cleaning & greasing of battery terminals and any other activity that may be required for proper functioning of the Solar Photovoltaic Power Plant. The maintenance record should be kept properly and to be submitted at JREDA office time to time. CMC documents should be certified by beneficiary.

#### 12.0 Breakdown / corrective Maintenance

Whenever a complaint is lodged by the user the bidder shall attend the same immediately. It is clarified that effective CMC means that the bidder should ensure 24 hours smooth working of all the solar home lighting throughout the CMC period and therefore, if any complaint in this level of service is found by the JREDA officials and if the bidder do not attempt the rectification of any such defect within three days of communication of such complaint to the bidders, the bidder will be liable for a penalty of Rs. 50 per day beyond three days of reporting of such complaint.

#### 13.0 Other Terms & Conditions

- **13.1** Insertion, post-script, addition and alteration shall not be recognized unless confirmed by bidder's signature and stamp.
- 13.2 Incomplete tender or tenders not submitted as per requirement as indicated in the NIT are likely to be rejected.
- **13.3** Bidders shall submit their offer strictly as per terms and conditions of the tender document without any deviation.
- 13.4 If at any time any of the documents/information submitted by the bidder is found to be incorrect, false or untruthful, the bid and/or the resultant order may be summarily rejected/ cancelled at the risk of the bidder.
- 13.5 Failure to furnish all information and documentary evidence as stipulated in the bid document or submission of an offer that is not substantially responsive to the bid document in all respects shall be summarily rejected.
- 13.6 All bids will be received in duly sealed cover within the due date and time. Bids received after the due date and time is liable for outright rejection.
- 13.7 JREDA reserves the right to reject part or whole of the bid/order without assigning any reason thereof, postpone the date of receipt and opening of the bids or cancel the bid without bearing any liability, whatsoever, consequent upon such decision.
- 13.8 No postal transaction shall be entertained for obtaining bid documents.
- **13.9** Issuance of bid documents shall not construe that the bidders would be automatically considered qualified.

# General Terms & Conditions NIB No: 04/JREDA/SPV/SHLS (CFL) / 2013-14

#### 1.0 Introduction

The instruction/information contained in the bid documents are for guidance and compliance of the intending bidder. Bidders are advised to obtain clarification from JREDA, if any, prior to submission of their bid, failing which it will be deemed that the stipulation made in the bid documents have been read, understood and are acceptable to the bidder.

Bidder shall bear all costs associated with the preparation and submission of the bid, journeys undertaken by them and subsequent bidding process till the award of the order to successful bidder and the JREDA shall in no case, shall be responsible or liable for these costs, regardless of the conduct or outcome of the bidding process.

#### 2.0 Scope of work

The Scope of work for CFL based Solar Home Lighting System includes Manufacturing, Supply, Installation and Testing & Commissioning including 5 years Comprehensive Maintenance Contract (CMC) of Indigenous CFL Based Solar Home Lighting Systems (SHLSs) under Solar Photovoltaic Programme 2012-13 for Jharkhand Renewable Energy Development Agency (JREDA) on Turnkey basis complete set in all respects along with one set of operational instruction cum maintenance manual (both English and Hindi) for each set and delivery on FOR destination/site (door delivery) basis across the State of Jharkhand as per the direction of JREDA. The list of destinations/consignees will be given to the successful bidder by JREDA before the start of dispatch.

#### 3.0 Bid documents

Tender documents shall comprise of all the documents mentioned in the table of contents of this documents. In addition to these any other documents/amendments/revisions or instructions issued by JREDA from time to time to bidders till due date of opening of the offers, shall also be deemed to be integral part of the bid document.

#### 4.0 Price

The bidder shall quote his price as per schedule of items of work. The contract price rates shall be firm and binding and shall not be subject to any variation except for statutory variation of taxes and duties during the contractual completion period. *The price shall be inclusive of all taxes, duties and levies including Jharkhand Vat etc. as on the opening date of tender.* The price shall also include designing, manufacturing, inspection, supply, transport, insurance, handling etc. All applicable charges for taking necessary clearance such as commercial tax, road permit etc. wherever required are also deemed to be included in the contract price.

#### 5.0 Inspection of the factory and Tests

JREDA reserves the right to inspect manufacturer's works/factory to ascertain the capability/availability of necessary equipment and infrastructure required for manufacture of the items offered. JREDA shall have the access and right to inspect the work or any part thereof at any stage and to test the goods to confirm their conformity to the technical specifications. Successful bidder shall inform JREDA at least 15 days in advance of schedule dispatch for technical sample audit.

#### 6.0 Payment terms and conditions

Subject to any deduction which JREDA may be authorized to make under this contract, the contractor shall be entitled to payment as follows:

- (a) 60% of the Contract Price shall be paid against supply and delivery of goods in full and in good condition as certified by Consignee & JREDA Officials after submission of following documents:
  - Original Commercial invoice raised from the state of Jharkhand for the supply made in triplicate (1+2).
  - ii. Copy of duly raised delivery challan / transportation challan /lorry receipt.
  - iii. Duly filled**Annexure–9** should be submitted in three sets (one for Consignee record, one for JREDA Hq. and one for JREDA's field Executive Engineer).
  - iv. Photographs of all the equipment (materials) at destination with signature& seal of Consignee & JREDA Officials. This record should be kept in the office of Consignee for verification.
- (b) **30%** of the Contract Price shall be paid against Installation, Testing & Commissioning after submission of following documents:
  - i) Copy of Original Commercial invoice raised at the time of supply in triplicate (1+2).
  - ii) Duly filled Annexure-10.
  - iii) Certificate for minimum seven days of satisfactory performance.
- (c) Rest 10% of the Contract Price shall be paid @2% of the Contract Price on completion of every one year period of the 5 year CMC period, after submission of following documents::
  - i) Copy of Original Commercial invoice raised at the time of supply in triplicate (1+2).
  - ii) Submission of quarterly reports of CMC undertaken by the manufacturer.

The payment for the items to be procured/installed will be released on receipt of the corresponding share as has been provided in the approved scheme of JREDA either from MNRE, Govt. of Jharkhand, beneficiary or other concerned.

#### 7.0 Dispatch Instructions

All items/equipments shall be subject to pre-dispatch inspection by JREDA or its authorized representatives before their dispatch. The manufacturer will submit test report with regard conformity to technical specifications for the items to be dispatched to JREDA. However, equipments will be dispatched only after the receipt of "Dispatch Clearance" from JREDA after acceptance of test report. No consignment shall be dispatched without the receipt of dispatch clearance from JREDA. The items which are being procured trough this bid have to be distributed/installed on the basis of demand to be received by JREDA. Therefore, JREDA does not take responsibility that it will procure 100% quantity as has been indicated in the bid. Further, as JREDA will receive the demand, the supply order shall be placed to the successful bidder for execution in due time.

After finalization of the tender JREDA authority will take decision for issuing L.O.I. for the work under scope to the successful bidder; and thereafter on the basis of demands received in the JREDA office. request for supply/ installation will be communicated. Then within 2 months period the supplier will have to ensure pre dispatch inspection from JREDA and within next 30 days JREDA will issue Dispatch instruction. Accordingly the work of supply & installation will be completed by the vendor within 90 days period from the date of issue of dispatch instruction.

#### 8.0 Liquidated Damages for Delay in Completion

If the supplier fails in the due performance of the contract to deliver any part of the equipment or complete the work within the time fixed under the contract or any extension thereof granted to him by JREDA and/or to fulfill his obligations in time under the contract, he shall be liable to pay to JREDA @0.5% per week maximum up to 10% of work value delayed beyond contract period.

#### 9.0 Risk & Cost:

If the contractor fails to complete the awarded work up to extended period of one year from the scheduled date of completion then JREDA will be at liberty to cancel the said work order and will get the full or part of left over work to be completed by way of engaging alternate contractor and completion of the said work shall be got completed at risk & cost of the failed contractor and failed contractor shall be liable to pay all the dues to JREDA.

#### 10.0 Insurance

The supplier shall arrange for transit and erection insurance of the materials & equipments for setting up of Solar Photovoltaic System.

#### 11.0 Assignment/Sub-letting

The Manufacturer shall not assign or sublet, manufacture, shop testing, packing & forwarding, transportation, transit insurance, supply in whole or part, and its obligations to any third party to perform under the order/contract.

In the event the manufacturer contravenes this condition, JREDA reserves the right to reject the equipment/work contract and procure the same from elsewhere at manufacturer's risk and cost. The Manufacturer shall be solely liable for any loss or damage which JREDA may sustain in consequence or arising out of such replacing of the contract work.

#### 12.0 Completeness of Tender

All fittings, assemblies, accessories, hardware items etc. & safety and protection devices as required shall be deemed to have been included in the tender, whether such items are specifically mentioned in the BoM or not.

#### 13.0 Compliance with Regulations

The supplier/contractor shall comply with all applicable laws or ordinances, codes approved standards, rules and regulations and shall procure all necessary municipal and/or other statutory bodies and government permits & licenses etc. at his own cost. The contractor shall leave the purchaser, Director, JREDA harmless as a result of any infractions thereof.

#### 14.0 Agreement

The successful qualified suppliers shall have to enter into an agreement in the office of the Director, JREDA, in prescribed format before commencement of supply.

#### 15.0 Income Tax

Without prejudice to the obligations of the supplier under law, any income tax which JREDA may be required to deduct by law/statute, shall be deducted at source and shall be paid to income tax authorities on account of the supplier. JREDA shall provide the supplier a certificate for such deductions of tax.

#### 16.0 Training Program, After Sales Service and Availability of Spare Parts:

- 16.1 The responsibility of organizing training program for SHLS will rest on the successful bidder. The training program will be organized in consultation with JREDA/Consignee. The training program will focus on operation and maintenance of SHLS. Printed leaflet/literature should be made available in Hindi by the Supplier regarding the operation and maintenance of their SHLS.
- 16.2 The Supplier shall depute authorized Service Engineer within 7 days from the date of the intimation of fault, and establish sufficient inventory of spares in the State in consultation with JREDA to provide satisfactory and uninterrupted services during the warrantee period.

#### 17.0 Force Majeure conditions

In the event of either party being rendered unable by force majeure to perform any obligation required to be performed by them under this agreement, relative obligation of the party affected by such force majeure shall be treated as suspended during which force majeure condition last.

The term force majeure shall have herein mean riots (other than among the contractor's employee), civil commotion, war (whether declared or not), invasion, act of foreign enemies hostilities, rebellion, insurrection, military coup to usurp power, act of god such as earthquake, lightening, floods, fires not caused by contractor's negligence and other cause which the contractor has no control and accepted as such by the Director, JREDA, whose decision shall be final and binding.

If the work is suspended by force majeure conditions lasting for more than 45 days, the purchasers shall have the option of canceling this contract in whole or part thereof, at its discretion. The contractor shall not claim for compensation for force majeure conditions.

#### 18.0 Jurisdiction of the Court

All disputes would be settled within Ranchi jurisdiction of court of law only.

.

# **Technical Specification**

#### NIB No: 04/JREDA/SPV/SHLS (CFL) / 2013-14

# COMPACT FLUORESCENT LAMP (CFL) BASED SOLAR HOME LIGHTING SYSTEM (Model-II)

A solar home lighting system (SHS) provides a comfortable level of illumination in one or more rooms of a house. The SHLS consists of a PV module, control electronics, battery, and luminaries(s). There are several SHS models featuring one, two, or four luminaries based on Compact Fluorescent Lamp (CFL).

PV module converts sunlight into electricity, which powers the luminaries(s), which consists of Compact Fluorescent Lamp (CFL) and an Electronic Circuit.

#### **BROAD PROFORMANCE SPECIFICATIONS**

The broad Performance specifications of a CFL light source based solar home lighting system are given below:

PV Module 37 Watt peak under STC

Battery Lead acid sealed maintenance free, Lead

acid tubular flooded or Gel / VRLA or NiMH or

Lithium-Ion

Light Source 9 Watt CFL

Light output 600±5 % lumens for 9 W CFL.

Mounting of light Wall or ceiling

Electronics Min 85 % efficiency

Inverter Quasi sine wave or sine wave type

Average duty cycle 5 hours a day under average daily insolation

of 5.5 kWh/ sq. m. on a horizontal surface.

Autonomy 3 days or Minimum 15 operating hours per permissible discharge

The configuration of model is as follows:

Model-2 as specified by MNRE 2 Lights

PV Module 1x 37 Wp under STC

Lamps 2x CFLs of 9W.

Battery 1x12V, 40 AH Lead Acid, Tubular positive plate flooded

electrolyte or Gel or VRLA Type.

or NiMH or Lithium-Ion of requisite capacity

Other components Control electronics, module mounting hardware, battery box,

inter-connecting wires/ cables, switches, etc.

#### TECHNICAL DETAILS

#### PV MODULE (S)

- i. Indigenously manufactured PV modules should be used
- ii. The PV module should be made up of crystalline silicon solar cells and must have a certificate of testing conforming to IEC 61215 Edition II / BIS 14286 from an NABL or IECQ accredited Laboratory. In case the certificate for the offered module is not available, a test certificate for higher capacity module produced by the same PV module manufacturer should be available.
- iii. The power output of the module(s) under STC should be 37 Wp.
- iv. The Load voltage\* corresponding to the power output mentioned above should be 16.4±0.2V.
- v. The Open Circuit Voltage\* of the PV modules under STC should be at least 21.0 Volts.
- vi. The module efficiency should not be less than 12% for 37 Wp modules.
- vii. The terminal box on the module should have a provision for opening, for replacing the cable, if required.
- viii. There should be a Name Plate fixed inside the module which will give:
  - a. Name of the Manufacturer or Distinctive Logo.
  - b. Model Number
  - c. Serial Number
  - Year of manufacture
- ix. Each PV module having capacity equal to 37 Wp or more must use a RF identification tag (RFID), which must contain the following information:
  - (i) Name of the manufacturer of PV Module
  - (ii) Model or Type Number
  - (iii) Serial Number
  - (iv) Month and year of the manufacture
  - (v) I-V curve for the module
  - (vi) Peak Wattage of the module at 16.4 volts
  - (vii) Im, Vm and FF for the module
  - (viii) Unique Serial No and Model No of the module

#### From 1st April 2013 onwards; RFID shall be mandatorily placed inside the module laminate.

x. A distinctive serial number starting with NSM will be engraved on the frame of the module or screen printed on the tedlar sheet of the module.

\*The Load voltage and Open Circuit Voltage conditions of the PV modules are not applicable for the system having MPPT.

- **xi.** Monogram of JREDA along with following details translated into Hindi language in Devnagari script shall be screen printed in indelible ink or paint on the back side of PV module:
  - Solar Photovoltaic Programme-2012-13
  - Not for sale or transfer
  - Statutory action would be taken by JREDA, if it found sold or transferred under different Sections of IPC.

#### **BATTERY**

- (i) Battery should be Lead Acid, Tubular positive plate flooded electrolyte or Gel or VRLA Type and have a rating of 12V, 40 Ah at C/10 rate of discharge, depending on the Model.
- (ii) 75 % of the rated capacity of the battery should be between fully charged & load cut off conditions.
- (iii) Battery should conform to the latest BIS/ International standards.

#### LIGHT SOURCE

- (i) The lamp should be a 9 Watt compact fluorescent lamp (CFL) with 4 pins only along with proper pre-heating circuit
- (ii) The light output from the lamps should be around 600±5 % lumens for 9 W CFL.
- (iii) The lamps should be housed in an assembly suitable for indoor use, with a reflector on its back.
- (iv) While fixing the assembly, the lamp should be preferably held in a base up configuration.
- (v) No blackening or reduction in the lumen output by more than 10% should be observed after 1000 ON/OFF cycles two minutes ON followed by four minutes OFF is one cycle.

#### **ELECTRONICS**

- i. The total electronic efficiency should be at least 85 %.
- ii. The inverter should be of quasi sine wave/sine wave type, with frequency in the range of 20 30 kHz. Half-wave operation is not acceptable.
- iii. Electronics should have temperature compensation for proper charging of the battery throughout the year. The idle current should be less than 2 mA.
- iv. The voltage drop from module terminals to the battery terminals should not exceed 0.6 volts including the drop across the diode and the cable when measured at maximum charging current.
- v. The PCB containing the electronics should be capable of solder free installation and replacement.
- vi. Necessary lengths of wires/cables, switches suitable for DC use and fuses should be provided.

#### **ELECTRONIC PROTECTIONS**

- (i) Adequate protection should be incorporated under "No Load" condition, e.g. when the lamps are removed and the system is switched ON.
- (ii) The system should have protection against battery overcharge, deep discharge condition.
- (iii) Load reconnect should be provided at 80% of the battery capacity status.
- (iv) Adequate protection should be provided against battery reverse polarity.
- (v) Fuses should be provided to protect against short circuit conditions.
- (vi) Protection for reverse flow of current through the PV module(s) should be provided.
- (vii) Electronics should have proper temperature compensation for proper charging of the battery throughout the year.

#### MECHANICAL COMPONENTS

- (i) Corrosion resistant metallic frame structure should be provided to hold the SPV module.
- (ii) The frame structure should have provision to adjust its angle of inclination to the horizontal, so that it can be installed at the specified tilt angle.
- (iii) Light source should be either for wall mounted or ceiling mounted or can be hung from the ceiling in a stable manner, as per site requirements.
- (iv) A vented plastic/ wooden/ metallic box with acid proof corrosion resistant paint for housing the storage battery indoors should be provided.

#### **INDICATORS**

The system should have two indicators, green and red.

The green indicator should indicate the charging under progress and should glow only when the charging is taking place. It should stop glowing when the battery is fully charged.

Red indicator should indicate the battery "Load Cut Off" condition

#### **QUALITY AND WARRANTY**

- (i) All the components and parts used in solar home systems should conform to the latest BIS or IEC specifications, wherever such specifications are available and applicable.
- (ii) The Solar home lighting system including the battery will be warranted for a period of five years from the date of supply.
- (iii) The PV module(s) will be warranted for a minimum period of 25 years from the date of supply. PV modules used in Solar Home Lighting System must be warranted for their output peak watt capacity, which should not be less than 90% at the end of Ten (10) years and 80% at the end of Twenty five (25) years.
- (iv) The Warranty Card to be supplied with the system must contain the details of the system. The manufacturers can also provide additional information about the system and conditions of warranty as necessary.

#### **OPERATION and MAINTENANCE MANUAL**

An Operation, Instruction and Maintenance Manual, in English & Hindi language, should be provided with the Solar Home Lighting System. The following minimum details must be provided in the Manual:

- Basic principles of Photovoltaic.
- A small write-up (with a block diagram) on Solar Home Lighting System its components, PV
  module, battery, electronics and luminaries and expected Performance.
- Significance of indicators.
- Type, Model number, voltage & capacity of the battery, used in the system.
- The make and wattage of the CFL used in the lighting system.
- The make and wattage of the CFL used in the lighting system.
- Clear instructions about mounting of PV module(s).
- Clear instructions on regular maintenance and trouble shooting of the Solar Home Lighting System.
- DO's and DONT's.
- Name and address of the contact person for repair and maintenance for each District of Jharkhand separately.

#### Format for Covering Letter

#### NIB No: 04/JREDA/SPV/SHLS (CFL) / 2013-14

(To be submitted in the official letter head of the company)

To,

The Director,

Jharkhand Renewable Energy Development Agency

Plot No. 328/B, Road No. 4, Ashok Nagar,

Ranchi- 834002.

Sub: Manufacturing, Supply, Installation and Testing & Commissioning including 5 years Comprehensive Maintenance Contract (CMC) of Indigenous CFL Based Solar Home Lighting Systems (SHLSs- Model-II) under Solar Photovoltaic Programme 2012-13 for Jharkhand Renewable Energy Development Agency (JREDA) on Turnkey basis.

Sir,

We are hereby submitting our offer in full compliance with the terms and condition of the above NIB No. A blank copy of the tender, duly signed on each page is also submitted as a proof of our acceptance of all specifications as well as terms & Conditions. We have submitted the requisite amount of "Earnest Money" in the form of Bank Guarantee, valid for twelve months.

The tender is submitted in two separate and sealed envelopes marked Part-I Technical Bid & Part-II Financial Bid.

(Signature of Authorized Signatory)

Name:

Designation:

Company Seal:

# <u>Check List of Technical bid</u> NIB No: 04/JREDA/SPV/SHLS (CFL) / 2013-14

S. No.	Particulars	Yes / No	Flag No.*
1	Covering Letter as per Annexure-1.		I
2	Information about the Bidder as per <b>Annexure-6</b> .		II
3	The bidder is registered PV System Integrator or Manufacturing company of SPV cells or PV Modules or Battery or PV System Electronics confirming to relevant National/International Standards (Attach relevant certificates of Industry Department or MNRE).		III
4	To indicate the functionality of the firm attach the balance sheet of last three years ending 31.03.2012 of the firm duly certified by statuary Auditor.		IV/V/VI
5	Registration certificate of MSME of Jharkhand State (Enclose certificate issued by Industry Department, Govt. of Jharkhand).		VII
6	The proof of supply of Solar System in any SNA/Govt. organization/PSU in the last seven years as per <b>Annexure-4</b> to indicate the quantity already supplied. Attach copy of the order and certificate indicating its successful execution.		VIII/IX Series
7	IEC/IS certificates for Solar PV Module (Attach relevant certificate).		X
8	Test certificate for Electronics (Attach valid relevant certificates).		XI
9	Certificate of Battery (Attach valid certificate).		XII
10	A copy of valid VAT/ TIN registration certificate		XIII
11	Average Annual Turnover for last three years ending 31.03.2012/2013. (Attach average annual turnover certificate as per <b>Annexure-12</b> )		XIV
12	Net worth as on 31.03.2012 / 2013. (Attach proof & Net worth certificate as per <b>Annexure-13</b> )		XV
13	Details of tender document fee (Bank Draft No. and Date)		XVI
14	Details of Earnest money(Bank Guarantee No. and Date) As per Annexure-9.		XVII
15	Technical Details as per Annexure-8.		XVIII
16	Declaration by Bidder as per <b>Annexure-7</b> .		XIX
17	Product Leaflet/Catalogue (if any).		XX
18	Technical Detail of SHLS (LED) of Bidder as per Annexure-3.		XXI
19	Authority Letter for Signing Bid Document & Attending Bid Opening Meeting as per Annexure-11.		XXII
20	Format for Quarterly CMC Format Annexure-14.		XXIII
21	Confirm whether you have prepared all the document in a spiral binding & all pages have been serially numbered.		

<sup>\*</sup> Please flag the annexure and write flag number as in the box.

#### Please ensure:

- i) That all information is provided strictly in the order mentioned in the check list mentioned above.
- ii) Bidders are advised to strictly confirm compliance to bid conditions and not to stipulate any deviation/conditions in their offer. Subsequent to bid submission, JREDA may or may not seek confirmations/clarifications and any offer(s) not in line with Bid conditions shall be liable for rejection.
- iii) Any clarification/confirmation bidder may require shall be obtained from JREDA before submission of the bid. Bidder shall submit complete bidding document including subsequent amendment, modification and revision, duly signed and stamped as a token of having read, understood and accepted all the terms and condition mentioned therein.

(Signature of Authorized Signatory)

Name:

Designation:

Company Seal:

# Format for Technical Details NIB No: 04/JREDA/SPV/SHLS (CFL) / 2013-14

To,

Director Jharkhand Renewable Energy Development Agency 328/B, Road No.-4, Ashok Nagar, Ranchi-834002, Jharkhand, INDIA

Dear Sir,

Sub: Manufacturing, Supply, Installation and Testing & Commissioning including 5 years Comprehensive Maintenance Contract (CMC) of Indigenous CFL Based Solar Home Lighting Systems (SHLSs- Model-II) under Solar Photovoltaic Programme 2012-13 for Jharkhand Renewable Energy Development Agency (JREDA) on Turnkey basis.

SL. No.	Particulars		Details
1	Make of Solar Module (Attach IEC Certificate)	:	
2	Weather resistant HDPE Junction Box (IP65)	:	
3	Nominal Voltage	:	
4	Operating Voltage of Solar Module (nom)	:	
5	Peak Power Voltage (Vmp)	:	
6	Peak Power Current (Imp)	:	
7	Open Circuit Voltage (Voc)	:	
8	Short Circuit Current (Isc)	:	
9	Make of Battery and Origin	:	
10	Type of Battery		
11	Battery Rating (Voltage & AH)	:	

(	Signature	of Aut	horized	Signatory

Name:

Designation:

Company Seal:

#### **Details of Orders Received and Executed in Last 7 Years**

### NIB No: 04/JREDA/SPV/SHLS (CFL) / 2013-14

Details of Orders Received & Executed by the Manufacturer/Supplier for Supply of SHLS to SNA/ Govt. Organization during Last Seven Years.

SL. No.	Name of Agency/ Organization	Purchase Order No., Date & Ordered Qty.	Name of Model	Delivery Schedule	Qty. Supplied Within Delivery Schedule	Qty. Supplied After Delivery Schedule	Date of Full Supply

Yours faithfully,

Name:

Designation:

Company Seal:

#### Note:

- (a) Attach Photocopies of Purchase Orders
- (b) Attach Photocopies of Certificate of Satisfactory Performance Issued by Concerned Nodal Agency/PSU/ Govt. Organization
- (c) Separate sheet may be used for giving detailed information in seriatim duly signed. This bid Proforma must be submitted duly signed in case separate sheet is submitted

#### **Price Bid**

#### NIB No: 04/JREDA/SPV/SHLS (CFL) / 2013-14

S. No.	Description	Total Bid Quantity	Price in Rupees	
			Unit Price (Rs.)	Total Price (Rs.)
1	2	3	4	5=3X4
1	Supply, Installation, Testing and Commissioning of CFL Based Solar Home Lighting System (SHLS-Model-II) as per the Bid Document.			

- Above quoted price for CFL based SHLS are complete in all respect as per Technical Specifications inclusive of all Central/State/Local taxes & duties, packing, forwarding, transit insurance, loading & unloading, transportation & other charges etc. FOR destination at any site in Jharkhand and inclusive of installation, testing, commissioning, performance testing and training.
- 2 Certified that rates quoted for SHLS are as per specifications, terms & conditions mentioned in the bid document.

(Signature of Authorized Signatory)

Name:

Designation:

Company Seal:

(This bid Performa must be submitted duly signed in case separate sheet is submitted)

# Information About The Bidding Firm NIB No: 04/JREDA/SPV/SHLS (CFL) / 2013-14

(To be submitted in the official letter head of the company)

SL. No.	Particu	ılars
1.	Name of the Bidder	
2.	Address of Bidder with Telephone, Fax, email	
3.	Address of the Registered Office	
4.	Address of the works	
5.	GPS Co-ordinate of Registered Office	
6.	GPS Co-ordinate of Factory Campus	
7.	Name & Designation of Authorized Signatory for Correspondence (Attach Power of Attorney as per <b>Annexure-11</b> )	
8.	Nature of Firm (Proprietorship/Partnership /Pvt. Ltd./Public Ltd. Co./Public Sector)	
9.	Permanent Account Number (PAN)/TIN (Attach proof)	
10.	Firm's Registration Number (Attach proof)	
11.	Sales Tax/Value Added Tax Registration Number (Attach proof)	
12.	Specify the Item Originally Manufactured (SPV module/Electronics/Battery)  (Attach copy of Registration Certificate of Industry Department)	
13.	Details of in-house testing facility (Attach Proof)	
14.	Office/ Dealer and Service network in Jharkhand with TIN No.(Give details)	
15.	Quoted quantity	

16.	Particulars of Earnest Money	
17.	Place where Materials will be Manufactured	
18.	Place where Materials will be Available for Inspection	
19.	Other details and remarks, if any	

Yours faithfully,

(Signature of Authorized Signatory)

Name :
Designation :
Company seal :

(Separate sheet may be used for giving detailed information duly signed)

# Declaration by the Bidder

# NIB No: 04/JREDA/SPV/SHLS (CFL) / 2013-14

	(To be submitted in the official letter head of the company)
having	(here in after referred to as the r) being desirous of tendering for the rate contract for work under the above mentioned tender and g fully understood the nature of the work and having carefully noted all the terms and conditions, rications etc. as mentioned in the tender document, DO HEREBY DECLARE THAT
1.	The Bidder is fully aware of all the requirements of the tender document and agrees with all provisions of the tender document.
2.	The Bidder is capable of executing and completing the work as required in the tender.
3.	The Bidder accepts all risks and responsibilities directly or indirectly connected with the performance of the tender.
4.	The Bidder has no collusion with any employee of JREDA or with any other person or firm in the preparation of the bid.
5.	The Bidder has not been influenced by any statement or promises of JREDA or any of its employees, but only by the tender document.
6.	The Bidder is financially solvent and sound to execute the work.
7.	The Bidder is sufficiently experienced and competent to perform the contract to the satisfaction of JREDA.
8.	The information and the statements submitted with the tender are true.
9.	The Bidder is familiar with all general and special laws, acts, ordinances, rules and regulations of the Municipal, District, State and Central Government that may affect the work, its performance or personnel employed therein.
10.	The Bidder has not been debarred from similar type of work by any SNA/ Government Dept. /PSU.
11.	This offer shall remain valid for Six months from the date of opening of the tender.
12.	The Bidder gives the assurance to execute the tendered work as per specifications terms and conditions.
13.	The Bidder confirms the capability to supply and install required no. of systems per month.
14.	The Bidder accepts that the earnest money be absolutely forfeited by JREDA if the Bidder fails to undertake the work or sign the contract within the stipulated period.

JREDA Page 26

(Signature of Authorized Signatory)

Name:
Designation:
Company Seal:

# <u>Technical Detail Form</u> NIB No: 04/JREDA/SPV/SHLS (CFL) / 2013-14

(To be submitted in the official letter head of the company)

Warrantee Card

1.	Nan Syst	ne & Address of the Manufacturer/ Supplier of the tem	
2.	Name & Address of the Purchasing Agency		
3.	Date	e of Supply of the System	
4.	Deta	ails of PV Module(s) Supplied in the System	
	(a)	Name of the Manufacturer	
	(b)	Make	
	(c)	Model	
	(d)	Serial No.	
	(e)	Wattage of the PV Module(s) under STC	
	(f)	Guarantee Valid Up To	
5.	Deta	ails of Battery	
	(a)	Name of the Manufacturer	
	(b)	Make	
	(c)	Model	
	(d)	Batch/Serial No(s).	
	(e)	Month & Year of Manufacture	
	(f)	Rated V & AH Capacity at C/20 or C/10 Rated at 27°C	
	(g)	Guarantee Valid Up To	
6.	Deta	ails of Electronics & Other BOS Items	
	(a)	Name of the Manufacturer	
	(b)	Make	
	(c)	Model	
	(d)	Serial No(s).	
	(e)	Month & Year of Manufacture	
	(f)	Guarantee Valid Up To	
7.		ignation & Address of the Person to be Contacted Claiming Warrantee Obligations	

(Signature of Authorized Signatory with Name Designation & Company Seal)

### **Filling Instructions:**

- 1. The SHLS components will be generally guaranteed as per General Terms & Conditions. The manufacturer can also provide additional information about the system and conditions of Guarantee as necessary. The Guarantee card to be supplied with the system must contain the details of the system supplied as per format given above.
- 2. During the Guarantee period JREDA/users reserve the right to cross check the performance of the systems for their minimum performance levels specified in the MNRE specifications.

## Format for Submitting Bank Guarantee for Earnest Money

## NIB No: 04/JREDA/SPV/SHLS (CFL) / 2013-14

(To be submitted in Rs. 100/- Non-Judicial Stamp Paper to be purchased in the name of the issuing bank)

То	,				
Th	e Director				
Jha	arkhand Renewable Energy Development Agency (JREDA)				
Plo	ot No. 328/B, Road No. 4, Ashok Nagar,				
Ra	nchi – 834002.				
WI	HEREAS (Supplier's name) (thereinafter				
ref	erred to as "Supplier"), a company registered under the Companies Act, 1956 and having its registered office at				
	is required to deposit with you, the Purchaser, by way of				
Ea	rnest Money Rs. (Rupees				
	only) in connection with its tender for the work with				
ref	erence to Notice Inviting Bid (NIB) No				
per	specification and terms and conditions enclosed therein.				
WI	HEREAS the Supplier as per "Notice Inviting Bid, point no. 3 Earnest Money" has agreed to establish a Bank				
	arantee in Your favour through us valid up to				
	rnest money in cash.				
	HERAS you have agreed to accept a Bank Guarantee from us in instead of earnest				
mo	oney in cash from the Supplier.				
1.	We(Bank) hereby agree and				
	undertake to pay you on demand the said amount of Rs (Rupees				
	only) without any protest or demur in the event the				
	Supplier/Tenderer after submission of his tender, resiles from or withdraws his offer or modifies the terms				
	and conditions thereof in a manner not acceptable to you or expresses his unwillingness to accept the order				
	placed and/or letter of intent issued on the Supplier/Tenderer for the work under "Notice Inviting Bid Ref.				
	No.: <u>04/JREDA/SPV/SHLS (CFL) / 2013-14</u> ".				
2.	Your decision as to whether the Supplier/Tenderer has resiled from or has withdrawn his offer or has				
	modified the terms and conditions thereof in a manner not acceptable to you or has expressed his				
	unwillingness to accept the order placed and/or Letter of Intent issued by you on the Supplier/Tenderer for				
	the work under "Notice Inviting Bid Ref. No.: 04/JREDA/SPV/SHLS (CFL) / 2013-14" in this regard, shall				
	be final and binding on us and we shall not be entitled to question the same.				
3.	Notwithstanding anything contained in the foregoing, our liability under this Guarantee shall be restricted to				
٥.	Rs				
	·································				

- 4. This Guarantee shall remain valid and in full force and effect up to ................................ (Date) and shall expire thereafter unless an intimation is given to the Bank by you earlier in writing discharging us from our obligation under this Guarantee.
- 5. We shall not revoke this Guarantee during its currency except by your consent in writing.
- 6. This Guarantee shall not be affected by any change in the constitution of the Supplier/Tenderer or yourselves or ourselves but shall ensure to your benefit and be enforceable against our legal successors or assignees by you or your legal successors.
- 7. Notwithstanding anything contained herein above unless a demand or claim under this Guarantee is made on us in writing within six months from the date of expiry of this Guarantee we shall be discharged from all liabilities under this Guarantee thereafter.
- 8. We have power to issue this Guarantee under our Memorandum and Articles of Association and the undersigned who is executing this Guarantee has the necessary power to do so under a duly executed Power of Attorney granted to him by the Bank.

	Signed and Delivered
For and on behalf of	Bank.
	(Banker's Name)
Name of Bank Manager:	
Address	

# <u>Certificate of Delivery of Solar Home Lighting Systems received by the Consignee as Proof of Compliance</u> <u>by the Supplier</u>

# NIB No: 04/JREDA/SPV/SHLS (CFL) / 2013-14 प्रमाणपत्र

Consignee/प्राप्त कर्ता का नाम :पदनामःपदनामः
विभाग का नामः
विभाग का पता :
प्रमाणित किया जाता है कि सोलर फोटोवोलटेइक कार्यक्रम के अंतर्गत ज़ेडा द्धारा अनुदानित दर पर कुल सोलर घरेलू लाईट (CFL Based) प्राप्त किया।
इन सोलर उपस्करों की आपूर्ति मेसर्स द्वारा की गई है।
Consignee/प्राप्त कर्ता का हस्ताक्षर & Seal:
दिनांक :
जेडा प्रतिनिधि का प्रमाण–पत्र
यह प्रमाणित किया जाता है कि उपर इंगित सामानों का निरीक्षण Specification के अनुसार प्राप्त करके उपर इंगित प्राप्त कर्त्ता को सुपर्द की जा चुकी है।

### Format of Power of Attorney for Signing Bid

# NIB No: 04/JREDA/SPV/SHLS (CFL) / 2013-14

### POWER OF ATTORNEY

(To be on non-judicial stamp paper of appropriate value as per Stamp Act relevant to place of execution.)

Know all men by these presents, we
as our attorney, to do in our name and on our behalf, all such acts, deeds and things necessary in connection with or incidental to our bid for Manufacturing, Supply, Installation and Testing & Commissioning including 5 years Comprehensive Maintenance Contract (CMC) of Indigenous CFL Based Solar Home Lighting Systems (SHLSs-Model-II) under Solar Photovoltaic Programme 2012-13 for Jharkhand Renewable Energy Development Agency (JREDA) on Turnkey basis including signing and submission of all documents and providing information / Bids to Jharkhand Renewable Energy Development Agency, representing us in all matters before [Insert Name], and generally dealing with Jharkhand Renewable Energy Development Agency in all matters in connection with our bid for the said Project.
We hereby agree to ratify all acts, deeds and things lawfully done by our said attorney pursuant to this Power of Attorney and that all acts, deeds and things done by our aforesaid attorney shall and shall always be deemed to have been done by us.
For
Accepted
(Signature)
(Name, Title and Address of the Attorney)

**Note:** The mode of execution of the Power of Attorney should be in accordance with the procedure, if any, lay down by the applicable law and the charter documents of the executants (s) and when it is so required the same should be under common seal affixed in accordance with the required procedure.

# Format For Financial Requirement - Annual Turnover

# NIB No: 04/JREDA/SPV/SHLS (CFL) / 2013-14

[On the letterhead of Bidding Company]

To,		
The Director, Jharkhand Renewable Energy Development A 328/B, Road No4, Ashok Nagar,	Agency,	
Ranchi- 834002.		
Dear Sir,		
Maintenance Contract (CMC) of Indigenous Cl	and Testing & Commissioning including 5 years FL Based Solar Home Lighting Systems (SHLSs- Mode d Renewable Energy Development Agency (JREDA) or	el-II) under Solai
We certify that the Bidding Company had an audited annual accounts of the last three years	average Annual Turnover of Rss ending 31.03.2012 / 2013 for SPV system.	based or
Authorised Signatory	Statutory Auditor	
(Power of Attorney holder)	(Stamp & Signature)	
Date:		

## Format For Financial Requirement - Net Worth Certificate

# NIB No: 04/JREDA/SPV/SHLS (CFL) / 2013-14

[On the letterhead of Bidding Company]

To,		
The Director, Jharkhand Renewable Energy Development Agency 328/B, Road No4, Ashok Nagar, Ranchi- 834002.	7,	
Dear Sir,		
Sub: Manufacturing, Supply, Installation and T Maintenance Contract (CMC) of Indigenous CFL Bas Photovoltaic Programme 2012-13 for Jharkhand Rene	sed Solar Home Lighting Systems (SE	ILSs- Model-II) under Solar
This is to certify that Net worth of The details a state of the state of th	{insert the name of Fare appended below.	Bidding Company}, as on
Particulars		Amount (In Rs.)
Equity Share Capital		, ,
Add: Reserves		
Subtract: Revaluation Reserve		
Subtract: Intangible Assets		
Subtract: Miscellaneous Expenditure to the extent no losses	ot written off and carried forward	
Net Worth as on 31st March 2012/2013		
Authorised Signatory	Statutory Auditor	

# Format for Quarterly O&M and CMC Report

# NIB No: 04/JREDA/SPV/SHLS (CFL) / 2013-14

[On the letterhead of Bidding Company]

To,
The Director, Jharkhand Renewable Energy Development Agency, 328/B, Road No4, Ashok Nagar, Ranchi- 834002.
Dear Sir, Sub: Design, Manufacture, Testing, Supply, Installation & Commissioning, Operation & Maintenance of Solar Home Lighting System.
Date of Installation  JREDA Dispatch Order No Dated  Place of Supply

S. N.	Place of Installed System	System Details	Date of Site Visit	O&M/CMC activities undertaken by Technician	Name and Signature of Concerned field Officer of JREDA	Name and Signature of Controlling Officer of JREDA
		Module No.				
		Battery No.				
		Charge Controller No.				
		Module No.				
		Battery No.				
		Charge Controller No.				
		Module No.				
		Battery No.				
		Charge Controller No.				

(Signature of Authorized Signatory)
Name:
Designation:
Company Seal: